## WHAT IS CLAIMED IS:

## 1. A compound of formula (I):

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in which:

- ❖ R<sub>f</sub> is a radical carrying a perfluoromethylene group, which group provides the link with the remainder of the molecule;
- R<sub>1</sub> and R<sub>3</sub>, which can be the same or different, are chosen from hydrogen and alkyl or aryl radicals;
- Ψ is an electron-withdrawing group such that
  Ψ-O-H is an acid with a pKa value (in water) of
  at most 8, advantageously of at most 6,
  preferably of at most 5.
- 2. The compound as claimed in claim 1, characterized in that  $\Psi$  is an electron-withdrawing group such that  $\Psi$ -O-H is an acid with a pKa value (in water) of at least 1, advantageously of at least 2.
- 3. The compound as claimed in claims 1 and 2, characterized in that at least one of the  $R_1$  and  $R_3$  groups is a light alkyl (at most 4 carbons) or a hydrogen, advantageously a hydrogen.
- 4. The compound as claimed in claims 1 to 3, characterized in that the  $R_f$  radical is of formula (II):  $EWG-(CX_2)_p-$

where:

- the X units, which are identical or different,

represent a chlorine, a fluorine or a radical of the formula  $C_nF_{2n+1}$  with n an integer at most equal to 5, preferably to 2, with the condition that the X units of the methylene group carrying the open bond are not chlorines and that at least one of them is a fluorine:

- EWG is a hydrocarbon or electron-withdrawing group (that is to say that the Hammett constant  $\sigma_p$  (sigma p) is > 0, advantageously at least equal to 0.2) which is preferably inert and advantageously, when p is equal to 1, is an electron-withdrawing group;
- p is a positive integer.
- 15 5. The compound as claimed in claims 1 to 4, characterized in that  $R_1$  is hydrogen.
  - 6. The compound as claimed in claims 1 to 5, characterized in that  $R_3$  is hydrogen.

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- 7. The compound as claimed in claims 1 to 6, characterized in that  $R_1$  and  $R_3$  are hydrogens.
- 8. The compound as claimed in claims 1 to 7, characterized in that  $R_f$  is a perfluoroalkyl of general formula  $C_rF_{2r+1}$  where r is a positive integer ranging from 1 to 10, advantageously from 1 to 5, preferably from 1 to 3.
- 30 9. The compound as claimed in claims 1 to 8, characterized in that  $R_{\rm f}$  is chosen from the trifluoromethyl, pentafluoroethyl and heptafluoropropyl radicals.
- 35 10. The compound as claimed in claims 1 to 8, characterized in that  $\Psi$  is an acyl.
  - 11. The compound as claimed in claims 1 to 8, characterized in that  $\boldsymbol{\Psi}$  is an acyl such that the pKa

value of  $\Psi$ -O-H is at least equal to approximately 2 and advantageously  $\Psi$ -O-H is an alkanoic acid with from 1 to 8 carbon atoms, preferably from 2 to 5.

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12. A process for the synthesis of a compound of formula (I), characterized in that it comprises bringing a compound of formula (III):

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where  $\Xi$  is a leaving group chosen from pseudohalogens and halogens, advantageously chlorine or bromine,

into contact with a base chosen from strong nitrogenous bases, the associated acid of which exhibits a pKa value of at least 12, and/or from anionic bases, with the condition that, when the base is a nonnitrogenous anionic base, the latter is in the presence of a polar solvent or a mixture of polar solvents.

- 13. The process as claimed in claim 12, characterized in that the base is a nonnitrogenous anionic base and that said polar solvent exhibits a solvent with a donor number of at least 10, advantageously of at least 15, preferably of at least 20.
- 14. The process as claimed in claims 12 and 13, characterized in that the base is a nonnitrogenous anionic base and that said polar solvent is a solvent which is miscible with water in any proportion.

- 15. The process as claimed in claims 12 to characterized in that the base is a nonnitrogenous anionic base and in that said polar solvent does not exhibit an acid functional group, that is to say that the pKa value of the most acidic hydrogen solvent is said at least equal advantageously to 25, preferably to 30.
- 16. The process as claimed in claim 12, characterized in that said base is a nitrogenous anionic base advantageously chosen from the salts, in particular alkali metal or alkaline earth metal salts, of silylated amines and silylamines.
- 15 17. The process as claimed in claims 12 and 16, characterized in that said base is the anion of a silylamine chosen from the alkali metal and alkaline earth metal salts of HMDZ (hexamethyldisilazane).

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18. The process as claimed in claims 12, 16 and 17, characterized in that said base is used in the presence of a polar solvent, advantageously a polar aprotic solvent.

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- 19. The process as claimed in claim 12, characterized in that said base is a base carrying at least 2 trivalent nitrogens.
- 30 20. The process as claimed in claims 12 and 19, characterized in that said base carrying at least 2 trivalent nitrogens is such that said 2 nitrogens are conjugated via at least one double bond.

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21. The process as claimed in claims 12, 19 and 20, characterized in that said base carrying at least 2 trivalent nitrogens is such that said 2 trivalent nitrogens form a bonding system

comprising an imine conjugated with the doublet of an amine.

- 22. The use of a compound of formula (I) as precursor of a heterocycle substituted by an  $R_{\rm f}$  group by cyclocondensation with a cosubstrate carrying 2 double bonds.
- 23. The use as claimed in claim 22, characterized in that said cyclocondensation is of 3+2 type.
- 24. The use as claimed in claims 22 and 23, characterized in that the cosubstrate is an organic compound carrying a pentavalent nitrogen itself carrying 2 double bonds (including the bonds of donor-acceptor type), at least one double bond of which connects said nitrogen to a carbon.